

Amendment to the Drawings

Please replace the drawing sheet containing Fig. 1 with the enclosed replacement sheet.

REMARKS

I. Status of the Application

Claims 1-20 are pending in this application. Claims 8 and 9 were withdrawn from consideration by the Examiner. In the February 9, 2006 office action, the Examiner:

- A. Objected to the Drawings, particularly Fig. 1, as allegedly being confusing;
- B. Rejected claims 1, 2, 4-7, 10-13 and 18-30 under 35 U.S.C. § 102(b) as being anticipated by Rumennik et al. (U.S. Patent No. 6,207,994 B1); and
- C. Objected claims 3, 11 and 15-17 as being dependent upon a rejected base claim; but deemed such claims to be allowable if rewritten in independent format.

In this response, applicant has filed an amended Fig. 1 to address the Examiner's objections, and has amended the specification commensurate with the replacement drawing Figure. Applicant has amended claims 1 and 10 to incorporate subject matter deemed allowable by the Examiner. Applicant has further canceled claims 3, 8, 9, 11 and 15, without prejudice, and has added new claims 21-24. Applicant respectfully submits that the amendments put the application in a condition for allowance. Favorable reconsideration of the application is earnestly solicited.

II. The Objection to the Drawings is Moot

The Examiner objected to the drawings, stating that Fig. 1 was “confusing since the regions cannot be properly identified. In addition, applicant fails to label all regions shown in figure 1 (i.e. floating region, the blank space between region 112 and substrate 100, etc).

In this response, Fig. 1 has been amended to include reference signs 112a through 112c that indicate the different doping concentrations in the drain region 112. The specification has been amended correspondingly, identifying the regions 112a through 112 as having different doping concentrations. Moreover, Fig. 1 has been amended to properly identify the region that is labeled 120.

These amendments are fully supported by the application as filed and do not constitute new matter. By way of example, the region labeled 120 in the replacement sheet corrects what was clearly an inadvertent error in the original drawings. In particular, the specification as filed clearly supports the amendment changing the region that is labeled 120 to the region within the area 122 as shown in the replacement drawings. To this end, the specification as filed describes the “further n-region 120” as being “below the p-region 118 and below the LDD area”. Moreover, “the implantation of the n-region is performed *using the same mask which was used for the implantation of the p-region.*” Thus, the n-region 120 must have a lateral extent roughly consistent with the p-region 118. (See also description of region 122 at p.8, lines 8-9). The region labeled 120 in the replacement sheet *clearly* satisfies these requirements, while the region labeled 120 in the original drawing sheet does not. Accordingly, the relabeling of region 120 in the replacement sheet corrects what amounts to be an inadvertent error in the first set of drawing sheets.

With regard to the areas labeled 112a, 112b, and 112c, the application as filed supports the area 112a having the same doping type as, but a higher doping concentration than, the area 112b. In particular, as claimed, a first drain portion (e.g. region 112) must have a higher doping concentration than a second drain portion (e.g. lightly doped drain “LDD” region 116). In Fig. 1, the area labeled 112a predominates the drain region 112, while the area labeled 112b predominates the LDD (lightly doped drain) region 116. Thus, the area labeled 112b necessarily has a lighter doping concentration, and yet the same doping type as, the area labeled 112a.

It is noted that the region 118 of the LDD area 116 cannot constitute this part of the “second drain portion” because the region 118 does not have the *same* doping type as the drain region 112, as claimed. (See claim 1). Similarly, the further n-region 120 cannot be a part of the claimed “second drain portion” because it represents another claim element, namely the “second region formed . . . below the second drain portion”.

Accordingly, one of ordinary skill in the art would recognize that, in the exemplary embodiment of the invention in Fig. 1, the region 112b has the same doping type as, but lesser doping concentration than, the region 112a. Thus, the amendments to the replacement sheet Fig. 1 and the specification are supported by the application as filed.

Moreover, one of ordinary skill in the art would readily recognize that the successive layers 112a, 112b and 112c have diminishing doping concentration levels as indicated by their relative hashing concentrations. One would further recognize that such diminishing doping concentration levels would naturally result from the fabrication process.

It is therefore respectfully submitted that the application as filed supports the amendments to Fig. 1 represented in the enclosed Replacement Sheet and also supports the corresponding amendments to the description.

III. Claims 1 and 10 are in a Condition for Allowance

Claims 1 and 10 stand rejected as allegedly being anticipated by Rumennik et al. Claims 1 and 10 have been amended to incorporate all the limitations of claims 3 and 11, respectively. The Examiner has deemed claims 3 and 11 to be allowable. Because claims 1 and 10 have been amended to incorporate allowable subject matter, it is respectfully submitted that claims 1 and 10 are in a condition for allowance.

IV. Claims 2, 4-7, 12-14 and 16-20

Claims 2, 4-7, 12-14 and 16-20 all depend from one of claims 1 or 10, and are therefore allowable for at least the same reasons.

V. New Claims 21-24

New claim 21 represents claim 15 rewritten in independent format. The Examiner has deemed claim 15 to be allowable if rewritten independent format. Accordingly, it is respectfully submitted that claim 21 is in a condition for allowance.

Claims 22-24 all depend from claim 21 and are therefore allowable for at least the same reasons.

VI. Conclusion

Applicant respectfully requests entry of the amendment and favorable consideration of the application.

A prompt and favorable action on the merits is requested.

Respectfully Submitted,



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